

## NMCP COVID-19 Report #13: Tuesday, 12 May 2020

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Disclaimer: I am not a medical professional. This document is current as of the date noted above. While I make every effort to find and summarize available data, things are changing rapidly, with new research and potentially conflicting literature published daily. Best practice and evidence are constantly shifting during this international public health crisis.

Reports are biweekly, planned for Tuesdays and Fridays.

### Statistics

*Global* 4,210,074 confirmed cases and 286,940 deaths in 187 countries/regions

#### *United States*

top 5 states (Virginia is ranked 14th)

	TOTAL	NY	NJ	IL	MA	CA
Confirmed Cases	1,348,183	337,055	140,206	79,007	78,462	69,347
Recovered	NA	58,363	15,642	NA	NA	NA
Deaths	80,706	26,988	9,340	3,459	5,108	2,779
Tested	9,382,235	1,204,651	425,933	442,425	394,728	991,897

[JHU CSSE](#) as of 1000 EDT Tuesday, 12 May 2020

NA: not all data available

#### *Navy (Department of Defense)*

	TOTAL	MIL	CIV	DEP	CTR
Cases	1,608	1,392	143	35	38
Hospitalized	22	8	7	0	7
Recovered	1,143	769	200	96	78
Deaths	8	1	5	0	2
Cumulative*	2,759	2,162	348	131	118

\*cumulative total = active + recovered + deaths

[DoD](#) dated Monday, 11 May 2020

<i>Virginia</i>	Total	Chesapeake	Hampton	Newport News	Norfolk	Portsmouth	Suffolk	Virginia Beach
Cases	25,800	343	147	166	319	210	219	509
Hospitalized	3,395	70	29	36	52	38	39	85
Deaths	891	9	3	10	5	9	20	18

[VA DOH](#) as of 1000 EDT Tuesday, 12 May 2020

## ***Ripple Effects: Other Health and Wellness Issues Impacted by COVID-19***

The current pandemic has far reaching effects beyond an individual's health and mortality associated with infection by the SARS-CoV-2 virus and COVID-19 disease. There are discussions by policy makers, thought leaders, and public health officials on other health impacts of the pandemic ([CHOP](#)). Topics include:

- mental health of frontline healthcare providers (see report #10) and other groups including children (see report #11)
- amplification of health disparities (see below)
- changes in access to and continuity of care for patients with chronic health conditions
- socioeconomic and psychosocial issues such as food insecurity (see report #9), domestic violence, and child maltreatment

### **Health Disparities**

Health disparities are "differences that exist among specific population groups in the United States in the attainment of full health potential that can be measured by differences in incidence, prevalence, mortality, burden of disease, and other adverse health conditions" ([NAP](#)).

Disparities are often interpreted to reflect differences between racial or ethnic groups, but they can also include other facets including gender, sexual orientation, age, disability, socioeconomic status, or geographic location ([NAP](#)). Social determinants of health (SDoH)—those conditions in which people are born, grow, live, work, and age along with the complex, interrelated social structures and economic systems that shape these conditions—are often at the core of health disparities and inequalities ([CDC](#) [sdoh]; [WHO](#)).

Studies suggest most healthcare providers have implicit biases, with positive attitudes towards whites and negative attitudes toward people of color; that bias is associated with poorer patient-clinician communication and quality of care and contributes to health disparities ([Am J Public Health](#)).

### ***Disparities in Disasters and Epidemics***

A 1999 synthesis of available evidence notes that racial and ethnic groups in the US are more vulnerable to natural disasters (and pandemics should qualify as disasters), and these inequalities may affect emergency response and recover ([Disasters](#)). Social inequalities can be associated with emerging infectious diseases—where they come from, as well as the populations and groups they spread to and within ([Emerg Infect Dis](#)). An article on health inequalities and infectious disease epidemics states:

"Our ability to accomplish that goal [i.e., to decrease unnecessary exposure, minimize susceptibility, and assure care] requires seeing pandemics for what they are: infectious diseases embedded in a social and political context—contexts defined by social determinants of health and unequal access to resources often resulting in behavioral and/or biological disparities between population subgroups. Policymakers and public health leaders must take these existing inequalities into account when planning for pandemics in order to prevent unnecessary suffering and the perpetuation of health and broader social inequities." ([Biosecur Bioterror](#))

### *Disparities and COVID-19*

There is growing evidence of health and economic disparities being amplified during the COVID-19 pandemic, especially in communities of color ([KFF](#)). Communities of color (e.g., Blacks, Hispanics, American Indians and Alaska Natives) often are disproportionately affected by underlying chronic conditions (e.g., diabetes, HIV/AIDS, heart disease) and access to care barriers such as lack of health insurance compared to whites; conditions during the pandemic will aggravate these issues and increase health disparities ([KFF](#)).

The CDC notes "current data suggest a disproportionate burden of illness and death among racial and ethnic minority groups"([CDC \[covid\]](#)). Factors include: living conditions (e.g., dense populations in urban centers, multigenerational households in some cultural minorities); work circumstances (e.g., lack of paid sick leave, variable employment and pay schedules); problems with access to care (e.g., lack of health insurance, distance to care, distrust in the healthcare system); and other social burdens (e.g., food and housing insecurity, incarceration) ([CDC \[covid\]](#)).

### *New York City*

The outbreak in New York City in particular highlights the disparities in the system and how they are exacerbated by the pandemic ([Lancet](#)). An analysis of COVID-19 cases in New York City boroughs found the highest number of hospitalizations and deaths per 100,000 was highest in the Bronx and lowest in Manhattan ([JAMA](#)).

The Bronx has the highest proportion of racial and ethnic minorities, the most people living in poverty, and the lowest level of education attainment when compared to other areas, with Manhattan being the most affluent, predominately white area ([NYCHD](#)). The authors of the NYC analysis note that "further studies are needed to examine whether the disproportionate burden of COVID-19 is being borne by lower income and minority communities in other regions of the US" ([JAMA](#)).

A later commentary discusses the SDoH specific to the Bronx that could explain these health disparities:

"Poor health in the Bronx is due at least in part to decades of policies related to housing, education, environmental health, and criminal justice that have perpetuated racial and

economic inequality.... More than half a million immigrants live in the borough, and most speak a language at home other than English. Immigrants in the Bronx are disproportionately represented in the essential workforce at risk for exposure to severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), including physicians, nurses, nursing aides, home health aides, subway and bus drivers, grocery clerks, and others." ([JAMA Intern Med](#))

In contrast, a perspective article warns "that in documenting COVID-19 racial disparities, we contextualize such data with adequate analysis" ([NEJM](#)).

#### *African Americans/Blacks*

Seventy of the first 100 recorded victims of COVID-19 in Chicago were blacks ([ProPublica](#)). An analysis of available data and census demographics done by the Washington Post shows similar striking numbers specifically in black Americans ([WashPo](#)). In Louisiana, blacks make up 32% of the population and account for 70% of deaths from COVID-19; in Milwaukee, Wisconsin, blacks make up 26% of the population and 73% of deaths ([WashPo](#)). For more information on the different impacts in black communities, see this report from amfAR mentioned in NMCP COVID-19 report #12: [amfAR](#); <https://ehe.amfar.org/inequity>.

For a selection of additional literature on the subject of health disparities in general and specific to COVID-19, see this collection of citations in PubMed:

<https://www.ncbi.nlm.nih.gov/sites/myncbi/tracy.shields.1/collections/59618692/public/>

#### **Summaries from Other Sources**

[CEBM](#): Preventing non-COVID-19 hospital admissions during a pandemic: a rapid overview of the evidence for high-value medications (11 May 2020)

"Fourteen evidence-based, guideline-supported medications that significantly reduce emergency hospital admissions were identified. These apply to major chronic disease populations considered higher risk for COVID-19 morbidity and mortality. There is COVID-19 related guidance on optimising use of some of these medications, including indications for altering doses and taking medication breaks. Health care practitioners and policy-makers should consider optimising therapeutic combinations and doses of these medications. Consideration may also be needed to adjust dispensing intervals to ensure that supplies are maintained, explore home delivery services, waive dispensing fees, and provide remote consultation support for patients to follow prescribed regimens."

The major chronic disease populations touched on in this summary are heart failure, hypertension, stable coronary artery disease, acute asthma in ER setting, stable COPD, type 2 diabetes, and schizophrenia.

[ECRI](#): Screening and Treatment for Post-intensive Care Syndrome after Discharge of Patients with COVID-19 (07 May 2020)

"No published studies provide data to assess PICS [post-intensive care syndrome] diagnosis and treatment in ICU patients who survived COVID-19. Our assessment of systematic reviews with meta-analyses of studies on PICS and patients treated in ICUs for any reason show that physical therapy and ICU diaries improve patient quality of life (QOL) after ICU discharge. ICU diaries also reduce postdischarge anxiety and depression risks. However, data are inconclusive on the effectiveness of physical rehabilitation and specialized post-ICU follow-up services because findings were too inconsistent across studies. Too few studies of other diagnostic or prevention strategies are available to draw conclusions. Large, multicenter studies are needed on PICS in ICU patients with COVID-19 to address evidence limitations and gaps. An evidence-based guideline recommends dedicated follow-up for patients discharged from ICUs. Two guidelines based on expert consensus emphasize the role of dedicated follow-up and family and caregiver education to prevent PICS."

### **Selected Primary Literature**

*Recent – published within the last 7 days of report date in peer-reviewed journals*

[JAMA Pediatrics](#): Characteristics and Outcomes of Children With Coronavirus Disease 2019 (COVID-19) Infection Admitted to US and Canadian Pediatric Intensive Care Units (11 May 2020)

"In this cross-sectional study of 46 North American PICUs, between March 14 and April 3, 2020, 48 children were admitted to 14 PICUs in the US and none in Canada. A total of 40 children (83%) had preexisting underlying medical conditions, 35 (73%) presented with respiratory symptoms, and 18 (38%) required invasive ventilation, and the hospital mortality rate was 4.2%."

"This early study shows that COVID-19 can result in a significant disease burden in children but confirms that severe illness is less frequent, and early hospital outcomes in children are better than in adults."

[MMWR](#): Preliminary Estimate of Excess Mortality During the COVID-19 Outbreak — New York City, March 11–May 2, 2020 (11 May 2020)

"COVID-19–associated mortality is higher in persons with underlying chronic health conditions such as heart disease and diabetes, and deaths in persons with these chronic health conditions might not be recognized as being directly attributable to COVID-19. In addition, social distancing practices, the demand on hospitals and health care providers, and public fear related to COVID-19 might lead to delays in seeking or obtaining lifesaving care. Thus, monitoring of all-cause deaths and estimating excess mortality during the

pandemic provides a more sensitive measure of the total number of deaths than would be recorded by counting laboratory-confirmed or probable COVID-19–associated deaths."

[MMWR](#): Effects of the COVID-19 Pandemic on Routine Pediatric Vaccine Ordering and Administration — United States, 2020 (08 May 2020)

This article looks at 2 sources of vaccine information—Vaccines for Children Program (VFC) provider order data from CDC’s Vaccine Tracking System and Vaccine Safety Datalink (VSD) vaccine administration data—over 2 different time periods: 1) January 7, 2019–April 21, 2019 and 2) January 6, 2020–April 19, 2020. It finds a "notable decrease in orders for VFC-funded, ACIP-recommended noninfluenza childhood vaccines and for measles-containing vaccines" during the more recent period compared to last year.

"The decline began the week after the national emergency declaration; similar declines in orders for other vaccines were also observed. VSD data show a corresponding decline in measles-containing vaccine administrations beginning the week of March 16, 2020. The decrease was less prominent among children aged  $\leq 24$  months than among older children. The subsequent increase in vaccine administrations observed in late March was more prominent in younger than older children."

The findings suggest childhood vaccination efforts nearly ground to a halt between March 13—when the national emergency was declared—and April 19.

[Lancet Rheumatol](#): Interleukin-1 blockade with high-dose anakinra in patients with COVID-19, acute respiratory distress syndrome, and hyperinflammation: a retrospective cohort study (07 May 2020)

*"Evidence before this study:* Since the coronavirus disease 2019 (COVID-19) outbreak, evidence has emerged that some patients develop acute lung injury and respiratory insufficiency as a result of an excessive, maladaptive host inflammatory response to severe acute respiratory syndrome coronavirus 2. Published work has delineated a similarity between this subgroup of patients with COVID-19 and those with hyperinflammatory syndromes (eg, resembling the cytokine storm that develops in patients with macrophage activation syndrome or after chimeric antigen receptor T-cell treatment). On this basis, use of cytokine-blocking agents has been proposed for treatment of patients with COVID-19; however, data are scarce for the efficacy and safety of these treatments in this population. In particular, no published study has assessed interleukin-1 (IL-1) blockade with anakinra, despite previous evidence of efficacy and safety of this treatment for patients with hyperinflammatory syndromes."

*"Added value of this study:* Our retrospective cohort study is, as far as we know, the first to describe IL-1 blockade with high-dose intravenous anakinra in patients with COVID-19, acute respiratory distress syndrome, and hyperinflammation."

*"Implications of all the available evidence: Our study, together with pre-existing evidence of the efficacy and safety of anakinra in patients with hyperinflammatory syndromes, suggests that this agent deserves consideration and controlled testing for the treatment of COVID-19."*

[Microbes Infect](#): Could nitric oxide help to prevent or treat COVID-19? (05 May 2020)

"The studies described here suggest that therapies designed to increase airway NO [nitric oxide] levels via gas inhalation and donor molecules may improve oxygenation and produce health benefits in COVID-19 subjects. In addition, limiting the lifestyle factors that reduce endogenous NO levels in the airways—such as mouth breathing and smoking—may also help to reduce SARS-CoV-2 viral load and symptoms of COVID-19 pneumonia by promoting more efficient antiviral defense mechanisms in the respiratory tract. In the absence of effective treatments targeting SARS-CoV-2, we believe that these strategies should be considered and tested to prevent or treat COVID-19."

## **In Brief**

### *Noteworthy*

After 2 White House aides tested positive for the coronavirus, officials who were potentially exposed—including Anthony Fauci (head of NIH's NIAID), Robert Redfield (CDC director), and Stephen Hahn (FDA commissioner)—will self-quarantine for 2 weeks ([WashPo](#)). Similarly, CNO Michael Gilday will self-quarantine after contact with a family member who tested positive for the coronavirus ([CNN](#)).

New York's 'patient zero' talks publicly about being sick with COVID-19 and recovery ([Today](#)).

The World Health Organization has released guidance on reopening schools and workplaces ([WHO](#) [school]; [WHO](#) [work]).

### *Testing and New Trials*

Late last Friday, the FDA issued an Emergency Use Authorization for the first SARS-CoV-2 antigen test. Quidel's Sofia 2 SARS Antigen FIA is a lateral flow immunofluorescent assay that directly detects SARS-CoV-2 viral proteins; while not as sensitive as PCR-based molecular test, it provides results indicating active infection in 15 minutes ([FDA](#)).

Based on data from a preprint, non-peer-reviewed study ([medRxiv](#)), almost everyone who has been infected by SARS-CoV-2—regardless of age, sex, or severity—make antibodies ([NYT](#)).

Johns Hopkins researchers will begin 2 RCTs of convalescent plasma—one trial will be in healthcare workers, the other in high-risk populations with major exposure to the virus ([HPN](#)).

### *Ripple Effects*

Adolescents may appear to be less at risk than others for COVID-19 disease, but social/physical distancing and disruptions of school routines can be especially challenging for them ([JHU Hub](#)).

A new report projects that the stress, isolation, and unemployment due to the pandemic could cause up to 75,000 'deaths from despair' (i.e., deaths from suicide or substance use) ([WBT](#)).

The Navajo Nation has been devastated by coronavirus; about 30% of residents have no running water at home, contributing the highest per capita infection rates for COVID-19 in the US ([CBS](#)).

In Los Angeles County, the mortality rates of COVID-19 in minority groups (e.g., Hawaiian and Pacific Islanders, Latinos, Asians) are significantly higher than in others, a trend that officials attribute in part to systemic inequalities and institutional racism ([LAT](#)).

"One of every four Filipinos in the New York-New Jersey area is employed in the health care industry. With at least 30 worker deaths and many more family members lost to the coronavirus, a community at the epicenter of the pandemic has been left reeling." ([ProPublica](#))

### *Coronavirus and Animals*

"Antibodies from Winter, a 4-year-old llama with great eyelashes, have neutralized coronavirus and other infections in lab experiments" ([NYT](#)).

A black-market drug from China to treat feline infectious peritonitis – caused by a coronavirus and thought to be incurable and 100% fatal – seems to work; the drug, known as GS-441524, is almost identical to remdesivir, the antiviral being studied to treat COVID-19 ([Atlantic](#)).

A pug named Winston has tested positive for the SARS-CoV-2 virus; his human family – mother (a pediatrician), father (an emergency medicine doctor), and son – also tested positive, but another dog and a cat in the family had negative tests ([ABC11](#)). As noted in the NMCP COVID-19 report #8 (24 April 2020), SARS-CoV-2 infection has been documented previously in lions and tigers (but not bears), dogs in Hong Kong, a cat in Belgium, and 2 pet cats in New York.

Has your pet been acting odd? It's not just you. "By clinging, chewing, barking or otherwise acting odd, pets are signaling their own struggles to cope with less privacy and more anxious people, animal behaviorists say" ([WashPo](#)).

### *Misinformation*

If you've heard about or seen the viral video called "Plandemic: the Hidden Agenda Behind COVID-19", here are some fact checkers (with sources) you may want to review: [Science](#); [PolitiFact](#)

One of the reasons misinformation abounds is that experts aren't good at social media and getting the right information out ([Atlantic](#)).

## References

### *Statistics*

DOD Department of Defense, Navy. US Navy COVID-19 updates (accessed 28 April 2020). Link: <https://navylive.dodlive.mil/2020/03/15/u-s-navy-covid-19-updates/>

JHU CSSE: Johns Hopkins Center for Systems Science and Engineering. Coronavirus COVID-19 Global Cases. Link: <https://coronavirus.jhu.edu/map.html>

VA DOH: Virginia Department of Health. COVID-19 in Virginia, updated daily. Link: <http://www.vdh.virginia.gov/coronavirus/>

### *Ripple Effects: Health Disparities*

Am J Public Health: Hall WJ, Chapman MV, Lee KM, Merino YM, Thomas TW, Payne BK, Eng E, Day SH, Coyne-Beasley T. Implicit Racial/Ethnic Bias Among Health Care Professionals and Its Influence on Health Care Outcomes: A Systematic Review. Am J Public Health. 2015 Dec;105(12):e60-76. doi: 10.2105/AJPH.2015.302903. Epub 2015 Oct 15. Review. PubMed PMID: 26469668; PubMed Central PMCID: PMC4638275. Link: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4638275/pdf/AJPH.2015.302903.pdf>

amfAR: Millett GA, Jones AT, Benkeser, D, et al. Assessing Differential Impacts of COVID-19 on Black Communities (02 May 2020). Link: [https://ehe.amfar.org/Assessing%20Differential%20Impacts%20of%20COVID-19%205-3-20\\_final.pdf](https://ehe.amfar.org/Assessing%20Differential%20Impacts%20of%20COVID-19%205-3-20_final.pdf)

Biosecur Bioterror: Quinn SC, Kumar S. Health inequalities and infectious disease epidemics: a challenge for global health security. Biosecur Bioterror. 2014 Sep-Oct;12(5):263-73. doi: 10.1089/bsp.2014.0032. PubMed PMID: 25254915; PubMed Central PMCID: PMC4170985. Link: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4170985/pdf/bsp.2014.0032.pdf>

CDC: Centers for Disease Control and Prevention. COVID-19 in Racial and Ethnic Minority Groups (accessed 11 May 2020). Link: <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/racial-ethnic-minorities.html>

CDC: Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP). Social Determinants of Health (accessed 11 May 2020). Link: <https://www.cdc.gov/nchhstp/socialdeterminants/index.html>

CHOP: Children's Hospital of Philadelphia, Policy Lab. Responding to COVID-19 (accessed 27 April 2020). Link: <https://policylab.chop.edu/project/responding-covid-19>

Disasters: Fothergill A, Maestas EG, Darlington JD. Race, ethnicity and disasters in the United States: a review of the literature. Disasters. 1999 Jun;23(2):156-73. Review. PubMed PMID:

10379098. Link REQUIRES LIBRARY SUBSCRIPTION / NMCP ATHENS LOGIN TO ACCESS:  
<http://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=10379098&site=ehost-live>

Emerg Infect Dis: Farmer P. Social inequalities and emerging infectious diseases. Emerg Infect Dis. 1996 Oct-Dec;2(4):259-69. Review. PubMed PMID: 8969243; PubMed Central PMCID: PMC2639930. Link: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2639930/pdf/8969243.pdf>

JAMA: Wadhera RK, Wadhera P, Gaba P, Figueroa JF, Joynt Maddox KE, Yeh RW, Shen C. Variation in COVID-19 Hospitalizations and Deaths Across New York City Boroughs. JAMA. 2020 Apr 29. doi: 10.1001/jama.2020.7197. [Epub ahead of print] PubMed PMID: 32347898; PubMed Central PMCID: PMC7191469. Link: <https://jamanetwork.com/journals/jama/fullarticle/2765524> JAMA Intern Med: Ross J, Diaz CM, Starrels JL. The Disproportionate Burden of COVID-19 for Immigrants in the Bronx, New York. JAMA Intern Med. 2020 May 8. doi: 10.1001/jamainternmed.2020.2131. [Epub ahead of print] PubMed PMID: 32383754. Link: <https://jamanetwork.com/journals/jama/fullarticle/2765524>

KFF: Kaiser Family Foundation. Samantha Artiga, Rachel Garfield, and Kendal Orgera. Communities of Color at Higher Risk for Health and Economic Challenges due to COVID-19 (07 April 2020). Link: <https://www.kff.org/disparities-policy/issue-brief/communities-of-color-at-higher-risk-for-health-and-economic-challenges-due-to-covid-19/>

Lancet: Dorn AV, Cooney RE, Sabin ML. COVID-19 exacerbating inequalities in the US. Lancet. 2020 Apr 18;395(10232):1243-1244. doi: 10.1016/S0140-6736(20)30893-X. PubMed PMID: 32305087; PubMed Central PMCID: PMC7162639. Link: [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)30893-X/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30893-X/fulltext)

NAP: National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Board on Population Health and Public Health Practice; Committee on Community-Based Solutions to Promote Health Equity in the United States; Baciu A, Negussie Y, Geller A, et al., editors. Communities in Action: Pathways to Health Equity. Washington (DC): National Academies Press (US); 2017 Jan 11. 2, The State of Health Disparities in the United States. (accessed 11 May 2020) Link: <https://www.ncbi.nlm.nih.gov/books/NBK425844/>

NEJM: Chowkwanyun M, Reed AL Jr. Racial Health Disparities and Covid-19 – Caution and Context. N Engl J Med. 2020 May 6. doi: 10.1056/NEJMp2012910. [Epub ahead of print] PubMed PMID: 32374952. Link: <https://www.nejm.org/doi/full/10.1056/NEJMp2012910>

NYCHD: New York City Health Department of Health and Mental Hygiene. Summary of vital statistics 2017: the city of New York. (accessed 11 May 2020). Link: <https://www1.nyc.gov/assets/doh/downloads/pdf/vs/2017sum.pdf>

ProPublica: ProPublica. Duaa Eldeib, Adriana Gallardo, Akilah Johnson, Annie Waldman, Nina Martin, Talia Buford and Tony Briscoe. The first 100 (09 May 2020). Link: <https://features.propublica.org/chicago-first-deaths/covid-coronavirus-took-black-lives-first/>

WashPo: Washington Post. Reis Thebault, Andrew Ba Tran, and Vanessa Williams. The coronavirus is infecting and killing black Americans at an alarmingly high rate (07 April 2020). Link: <https://www.washingtonpost.com/nation/2020/04/07/coronavirus-is-infecting-killing-black-americans-an-alarmingly-high-rate-post-analysis-shows>

WHO: World Health Organization. Social determinants of health (accessed 11 May 2020). Link: [https://www.who.int/social\\_determinants/sdh\\_definition/en/](https://www.who.int/social_determinants/sdh_definition/en/)

### *Summaries from Other Sources*

CEBM: Centre for Evidence-Based Medicine, University of Oxford. Bobrovitz N, Lee J, Mahtani KR. Preventing non-COVID-19 hospital admissions during a pandemic: a rapid overview of the evidence for high-value medications (11 May 2020) Link: <https://www.cebm.net/covid-19/preventing-non-covid-19-hospital-admissions-during-a-pandemic-a-rapid-overview-of-the-evidence-for-high-value-medications/>

ECRI: Clinical Evidence Assessment. Screening and Treatment for Post-intensive Care Syndrome after Discharge of Patients with COVID-19 (07 May 2020). Link: <https://assets.ecri.org/PDF/COVID-19-Resource-Center/COVID-19-Clinical-Care/COVID-ECRI-HTA-Screening-PICS-After-ICU-Discharge.pdf>

### *Selected Primary Literature*

JAMA Pediatrics: Shekerdemian LS, Mahmood NR, Wolfe KK, Riggs BJ, Ross CE, McKiernan CA, Heidemann SM, Kleinman LC, Sen AI, Hall MW, Priestley MA, McGuire JK, Boukas K, Sharron MP, Burns JP; International COVID-19 PICU Collaborative. Characteristics and Outcomes of Children With Coronavirus Disease 2019 (COVID-19) Infection Admitted to US and Canadian Pediatric Intensive Care Units. JAMA Pediatr. 2020 May 11. doi: 10.1001/jamapediatrics.2020.1948. [Epub ahead of print] PubMed PMID: 32392288. Link: <https://jamanetwork.com/journals/jamapediatrics/fullarticle/2766037>

Lancet Rheumatol: Cavalli G, De Luca G, Campochiaro C, et al. Interleukin-1 blockade with high-dose anakinra in patients with COVID-19, acute respiratory distress syndrome, and hyperinflammation: a retrospective cohort study Lancet Rheumatol Published: May 07, 2020 DOI: [https://doi.org/10.1016/S2665-9913\(20\)30127-2](https://doi.org/10.1016/S2665-9913(20)30127-2) Link: [https://www.thelancet.com/journals/lanrhe/article/PIIS2665-9913\(20\)30127-2/fulltext](https://www.thelancet.com/journals/lanrhe/article/PIIS2665-9913(20)30127-2/fulltext)

Microbes Infect: Martel J, Ko YF, Young JD, Ojcius DM. Could nitric oxide help to prevent or treat COVID-19? Microbes Infect. 2020 May 5. pii: S1286-4579(20)30080-0. doi: 10.1016/j.micinf.2020.05.002. [Epub ahead of print] PubMed PMID: 32387333. Link: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7200356/pdf/main.pdf>

MMWR: Preliminary Estimate of Excess Mortality During the COVID-19 Outbreak — New York City, March 11–May 2, 2020. MMWR Morb Mortal Wkly Rep. ePub: 11 May 2020. DOI: <http://dx.doi.org/10.15585/mmwr.mm6919e5> Link: <https://www.cdc.gov/mmwr/volumes/69/wr/mm6919e5.htm>

MMWR: Santoli JM, Lindley MC, DeSilva MB, et al. Effects of the COVID-19 Pandemic on Routine Pediatric Vaccine Ordering and Administration — United States, 2020. MMWR Morb Mortal Wkly Rep. ePub: 8 May 2020. DOI: <http://dx.doi.org/10.15585/mmwr.mm6919e2> Link: <https://www.cdc.gov/mmwr/volumes/69/wr/mm6919e2.htm>

### *In Brief*

ABC11: WTVD, Durham, NC. Chapel Hill family's dog tests positive for COVID-19 in Duke University study (28 April 2020). Link: <https://abc11.com/health/family-dog-tests-positive-for-covid-19-in-duke-study/6134611/>

Atlantic: The Atlantic. Renee DiResta. Virus Experts Aren't Getting the Message Out (06 May 2020). Link: <https://www.theatlantic.com/ideas/archive/2020/05/health-experts-dont-understand-how-information-moves/611218/>

Atlantic: The Atlantic. Sarah Zhang. A Much-Hyped COVID-19 Drug Is Almost Identical to a Black-Market Cat Cure (08 May 2020). Link: <https://www.theatlantic.com/science/archive/2020/05/remdesivir-cats/611341/>

CBS: CBS News. Grace Baek. Navajo Nation residents face coronavirus without running water (08 May 2020). Link: <https://www.cbsnews.com/news/coronavirus-navajo-nation-running-water-cbsn-originals/>

CNN: Barbara Starr and Ryan Browne. US chief of naval operations to self-quarantine (updated 11 May 2020). Link: <https://www.cnn.com/2020/05/10/politics/chief-of-naval-operations-michael-gilday-quarantine/index.html>

FDA: Letter to Quidel Corp, Sofia 2 SARS Antigen FIA (08 May 2020). Link: <https://www.fda.gov/media/137886/download>

HPN: Homeland Preparedness News. Chris Galford. Johns Hopkins to begin convalescent plasma trials focused on high-risk and at-home COVID-19 infectees (08 May 2020). Link: <https://homelandprepnews.com/countermeasures/48791-johns-hopkins-to-begin-convalescent-plasma-trials-focused-on-high-risk-and-at-home-covid-19-infectees/>

JHU Hub: Johns Hopkins University Hub. Samuel Volkin. The impact of the COVID-19 pandemic on adolescents (11 May 2020). Link: <https://hub.jhu.edu/2020/05/11/covid-19-and-adolescents/>

LAT: Los Angeles Times. Alex Wigglesworth. Institutional racism, inequity fuel high minority death toll from coronavirus, L.A. officials say (11 May 2020). Link: <https://www.latimes.com/california/story/2020-05-11/institutional-racism-inequity-high-minority-death-toll-coronavirus>

medRxiv\*: Wajnberg A, Mansour M, Leven E, et al. Humoral immune response and prolonged PCR positivity in a cohort of 1343 SARS-CoV 2 patients in the New York City region. medRxiv 2020.04.30.20085613; doi: <https://doi.org/10.1101/2020.04.30.20085613>Link: <https://www.medrxiv.org/content/10.1101/2020.04.30.20085613v1.full.pdf>

\*bioRxiv and medRxiv are preprint servers: "[T]hese are preliminary reports that have not been peer-reviewed. They should not be regarded as conclusive, guide clinical practice/health-related behavior, or be reported in news media as established information."

NYT: New York Times. Jillian Kramer. Hoping Llamas Will Become Coronavirus Heroes (06 May 2020). Link: <https://www.nytimes.com/2020/05/06/science/llama-coronavirus-antibodies.html>

NYT: New York Times. Apoorva Mandavilli. After Recovery From the Coronavirus, Most People Carry Antibodies (07 May 2020). Link: <https://www.nytimes.com/2020/05/07/health/coronavirus-antibody-prevalence.html>

PolitiFact: Daniel Funke. Fact-checking 'Plandemic': A documentary full of false conspiracy theories about the coronavirus (07 May 2020). Link: <https://www.politifact.com/article/2020/may/08/fact-checking-plandemic-documentary-full-false-con/>

ProPublica: ProPublica, Nina Martin and Bernice Yeung. "Similar to Times of War": The Staggering Toll of COVID-19 on Filipino Health Care Workers (03 May 2020). Link: <https://www.propublica.org/article/similar-to-times-of-war-the-staggering-toll-of-covid-19-on-filipino-health-care-workers>

Science: Science. Martin Enserink and Jon Cohen. Fact-checking Judy Mikovits, the controversial virologist attacking Anthony Fauci in a viral conspiracy video (08 May 2020). Link: <https://www.sciencemag.org/news/2020/05/fact-checking-judy-mikovits-controversial-virologist-attacking-anthony-fauci-viral>

Today: NBC Today Show. Maura Hohman and Scott Stump. New York's coronavirus 'patient zero' tells his story for the first time: 'Thankful that I'm alive' (11 May 2020). Link: <https://www.today.com/health/new-york-s-coronavirus-patient-zero-tells-his-story-first-t181216>

WashPo: Washington Post. Derek Hawkins, Katie Mettler, Meryl Kornfield, Miriam Berger, Candace Buckner, Samantha Pell and Hannah Knowles. Fauci, CDC and FDA heads taking precautions after exposure to coronavirus (09 May 2020). Link: <https://www.washingtonpost.com/nation/2020/05/09/coronavirus-update-us/>

WashPo: Washington Post. Amanda Long. Your quarantined pet may be acting odd. Here's how to help (11 May 2020). Link:

<https://www.washingtonpost.com/science/2020/05/11/coronavirus-pets-behavior/>

WBT: Well Being Trust and the Robert Graham Center. Projected Deaths of Despair from COVID-19 (08 May 2020; accessed 11 May 2020). Link: [https://wellbeingtrust.org/wp-content/uploads/2020/05/WBT\\_Deaths-of-Despair-COVID-19-FINAL.pdf](https://wellbeingtrust.org/wp-content/uploads/2020/05/WBT_Deaths-of-Despair-COVID-19-FINAL.pdf)

WHO: World Health Organization. Considerations for public health and social measures in the workplace in the context of COVID-19 (10 May 2020). Link: <https://www.who.int/publications-detail/considerations-for-public-health-and-social-measures-in-the-workplace-in-the-context-of-covid-19>

WHO: World Health Organization. Considerations for school-related public health measures in the context of COVID-19 (10 May 2020). Link: <https://www.who.int/publications-detail/considerations-for-school-related-public-health-measures-in-the-context-of-covid-19>